

*Anderson et al.  
Serial No.: 10/061,969  
Page 2 of 6*

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listing of the claims in the application:

**LISTING OF THE CLAIMS:**

Claims 1-29 (canceled).

Claim 30. (original) A microarray comprising a solid phase support and at least about 500 cells per square centimeter wherein each cell contains a agent of interest that is not chemically bound to the solid phase support.

Claim 31. (original) The microarray of claim 30 containing at least about 1,000 cells per square centimeter.

Claim 32. (original) A microarray comprising a solid phase support and at least about 500 cells per square centimeter wherein each cell contains an agent of interest which is a macromolecule, a microorganism, a plant or animal cell, an organelle or a fraction of a biological cell.

Claim 33. (original) The microarray of claim 32 containing at least about 1,000 cells per square centimeter.

Claim 34. (original) A microarray comprising a solid phase support and at least about 500 cells per square centimeter wherein each cell contains an agent of interest that was synthesized prior to contacting the solid phase support.

*Anderson et al.*  
*Serial No.: 10/061,969*  
*Page 3 of 6*

Claim 35. (original) The microarray of claim 34 containing at least about 1,000 cells per square centimeter.

Claim 36. (original) A microarray comprising a solid phase support and at least about 500 different cells per square centimeter wherein each cell is formed by a solid material adhered to said solid phase support wherein each solid material contains a agent of interest.

Claim 37. (original) The microarray of claim 36 containing at least about 1,000 cells per square centimeter.

Claim 38-80 (canceled)

Claim 81. (previously presented) The microarray of claim 30 wherein the agent of interest is a macromolecule, a microorganism, a plant or animal cell, an organelle or a fraction of a biological cell.

Claim 82. (previously presented) The microarray of claim 81 wherein the macromolecule is a protein.

Claim 83. (previously presented) The microarray of claim 30 wherein the agent of interest is synthesized prior to contacting the solid phase support.

Claim 84. (previously presented) The microarray of claim 30 wherein each cell is formed by a solid material adhered to said solid phase support and wherein each solid material contains an agent of interest.

Claim 85. (previously presented) The microarray of claim 30 wherein the solid phase support is a solid block on an inert solid support, the solid block containing a plurality

*Anderson et al.*  
*Serial No.: 10/061,969*  
*Page 4 of 6*

of cells exposed to the surface of the block wherein each cell contains a different agent of interest.

Claim 86. (previously presented) The microarray of claim 30 further comprising a plurality of structures bound to said surface, wherein each of a plurality of structures has an immobilized agent of interest available for binding to a target, wherein the target is a binding partner for the agent of interest, and wherein the microarray contains a plurality of different agents of interest in a corresponding plurality of different structures.

Claim 87. (previously presented) The microarray of claim 86, wherein the structures are permeable to the target.

Claim 88. (previously presented) The microarray of claim 87, wherein the structures are a gel.

Claim 89. (previously presented) The microarray of claim 86, wherein the structures are made of impermeable material and the agent of interest is immobilized on a surface thereof.

Claim 90. (previously presented) The microarray of claim 86, wherein each of the structure forms a hollow chamber with the agent of interest immobilized on an inner surface of the hollow chamber.

Claim 91. (previously presented) The microarray of claim 30 wherein the solid phase support has a flat surface, and a plurality of structures projecting away from the plane of the solid phase support, wherein each of the plurality of the structures has an agent of interest bound thereto, and wherein the microarray contains a plurality of different agents of interest in a corresponding plurality of different structures.

*Anderson et al.*  
*Serial No.: 10/061,969*  
*Page 5 of 6*

Claim 92. (previously presented) The microarray of claim 91 wherein the structures are made of impermeable material and the agents of interest are immobilized on a surface thereof.

Claim 93. (previously presented) The microarray of claim 91 wherein solid material between the structures was removed.

Claim 94. (previously presented) The microarray of claim 31 containing at least about 5,000 cells per square centimeter.

Claim 95. (previously presented) The microarray of claim 94 containing at least about 10,000 cells per square centimeter.

Claim 96. (previously presented) The microarray of claim 95 containing at least about 100,000 cells per square centimeter.

Claim 97. (previously presented) The microarray of claim 30 further comprising a hydrophobic material between the cells on the solid phase support.